

ABSTRACT

A plate and tube bending device in which a workpiece is held between the forming die and the secondary clamp block of a plate and tube bending fixture. When the primary clamp block of the plate bending fixture is rotated to achieve a bending moment in the workpiece, the workpiece is bent until the primary clamp block revolves to a top point where rotation ceases and the workpiece is formed exactly into the expected angle of bend. At the same time, the primary clamp block cushioning mount has shock absorbing springs inside and the pressure cylinder mount absorbs shock from the force generated when force is applied to the workpiece during bending which is uniformly dispersed by the primary clamp block such that the workpiece is formed precisely at the expected angle of bend, with the workpiece surface remaining smooth and free of pressure marks.